User Manual

September 2007 Revision 1.4

Point – of- Sale Hardware System

P/N: 48200134

Manual Version 1.4

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Safety

IMPORTANT SAFETY INSTRUCTIONS

1. To disconnect the machine from the electrial power supply, turn off the power switch and remove the power cord plug from the wall socket. The wall socket must be easily accessible and in close proximity to the machine.
2. Read these instructions carefully. Keep these instructions for future reference.
3. Follow all warnings and instructions marked on the product.
4. Do not use this product near water.
5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
6. Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should never be placed near or over a radiator or heat register, or in a built-in installation unless proper ventilation is provided.
7. This product should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
8. Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
9. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.

FCC

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference

(2) This device must accept any interference received, including interference that may cause undesired operation.

CE MARK

This device complies with the requirements of the EEC directive 2004/108/EC with regard to "Electromagnetic compatibility" and 2006/95/EC "Low Voltage Directive".

CAUTION ON LITHIUM BATTERIES

There is a danger of explosion if the battery is replaced incorrectly. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions.

LEGISLATION AND WEEE SYMBOL

2002/96/EC Waste Electrical and Electronic Equipment Directive on the treatment, collection, recycling and disposal of electric and electronic devices and their components.

The crossed dustbin symbol on the device means that it should not be disposed of with other household wastes at the end of its working life. Instead, the device should be taken to the waste collection centres for activation of the treatment, collection, recycling and disposal procedure.

To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Revision History

Revision Number	Description	Revision Date
1.2	B77 Motherboard Information added	2006 July
1.3	CE Mark & WEEE added Warranty card deleted specification updated driver list and installation updated LCD ID Setting updated BIOS Settings added	2006 September
1.4	Cover page updated B75 Motherboard related information removed	2007 September

Table of Contents

1. Item Checklist

Take the system unit out of the carton. Remove the unit from the carton by holding it by the foam inserts. The following contents should be found in the carton.

a. External Floppy Cable

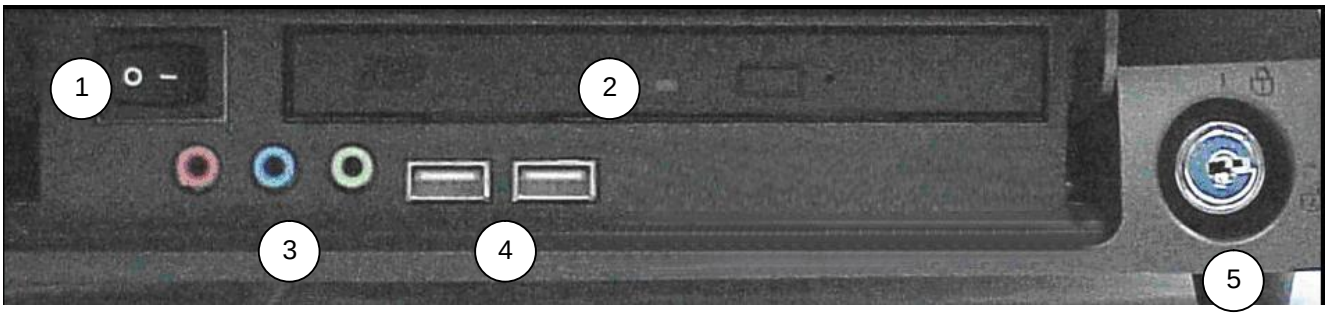
b. Power Cord

c. Driver CD

d. Manual

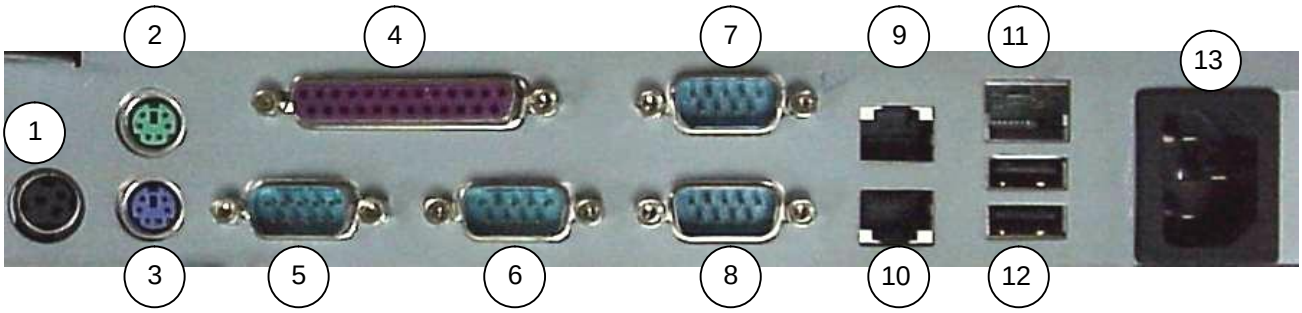
2. System View

2.1. Front View



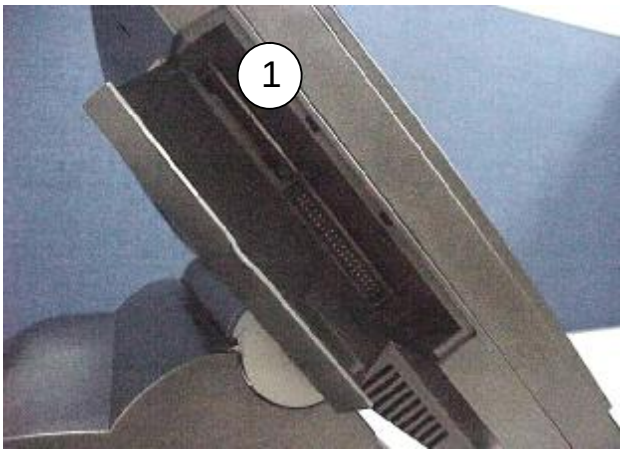
#	Function	#	Function
1	Power Switch	2	CD-ROM Drive
3	MIC/Line-In/Line-Out	4	USB 3 & 4
5	Key Lock		

2.2. Rear View



#	Function	#	Function
1	DC Output 24V/2.0A	2	PS/2 Mouse
3	PS/2 Keyboard	4	LPT
5	COM1	6	COM2
7	COM3 / VGA port for 2nd Display	8	COM4
9	Cash Drawer 1	10	Cash Drawer 2
11	LAN	12	USB 1 & 2
13	AC Inlet		

2.3. Side View



#	Function
1	Compact Flash Slot

3. Specification

Mainboard	**B77**
CPU Supports	Intel SK478 CPU Up to P4 2.6G, Celeron 2.5G, Mobile Celeron 1.2G
Chipset	Intel 852GM & ICH4 / FSB400 MHz
System Memory	2 x DDR DIMM sockets supported with memory size up to 1GB
Graphic Memory	UMA Shared Memory up to 64MB
LCD Touch Panel	
LCD Size	12.1" / 15" TFT LCD
Brightness	POS 600: 200 cd/㎡
	POS 605: 250 cd/㎡
Resolution	800 x 600 / 1024 x 768
Touch Screen	Resistive type
Tilt Angle	0° - 60°
Storage Devices	
HDD	1 x 3.5" Drive Bay
ODD	1 x Slim CD-ROM / CD-RW / DVD-ROM Drive Bay
Storage Devices	
Flash Memory	Compact Flash (Type I / II)
Expansion	
Mini-PCI Socket	1
External I/O Ports **Front I/O**	
USB	2 (V2.0)
Line in	1
Line out	1
Mic in	1
Rear I/O	
PS/2 Keyboard	1
PS/2 Mouse	1
USB	2 (V2.0)
Serial / COM	4 x powered COM ports (pin 1 / pin 9 support +5V / +12V by Jumper)
Parallel	1

LAN (10 / 100)	1 (RJ45)
2 nd VGA Output	1 x female type connector with power
Cash Drawer Port	2 x RJ11 (with 12V / 24V)
Internal Speaker	2 x 2W
POS Printer Jack	+24V DC Output
Internal Interface	
USB	USB5 / USB6
COM	B77: COM5 for touch, COM6 for MSR
2 nd VGA	1 x 10 pin header
Control / Indicator	
Power Button	1
Indicator LED	1 (Power)
Power	
Power Supply	Internal 180W ATX switching mode power supply
Environment	
EMC & Safety	FCC, Class A, CE, LVD
Operating Temperature	5℃ ~ 35℃ (41℉ ~ 95℉)
Storage Temperature	-20℃ ~ 60℃ (-4℉ ~ 140℉)
Operating Humidity	20% ~ 80% RH non condensing
Storage Humidity	20% ~ 80% RH non condensing
Peripheral	
Magnetic Card Reader	3 Tracks (RS-232 / PS2 Interface)
I-Button	Dallas Key PS2 Interface
Customer Display	VFD / LCD Display
Wireless LAN	Mini PCI Card
Dimension (W x D x H)	POS 600: 300 x 301 x 201 – 297mm / 11.8" x 11.9" x 7.9" – 11.7"
	POS 605: 379 x 363 x 213 – 324mm / 14.9" x 14.3" x 8.4" – 12.8"
Weight	POS 600: N.W. 8kgs / 17.6lbs / G.W. 9kgs / 19.8lbs
	POS 605: N.W. 9kgs / 19.8lbs / G.W. 10kgs / 22lbs
OS Support	Windows XP, WEPOS, XP Embedded, XP Professional for Embedded, WIN 2000 Professional Embedded, WIN NT 4.0, Linux, Redhat 7.2

- This specification is subject to change without prior notice.

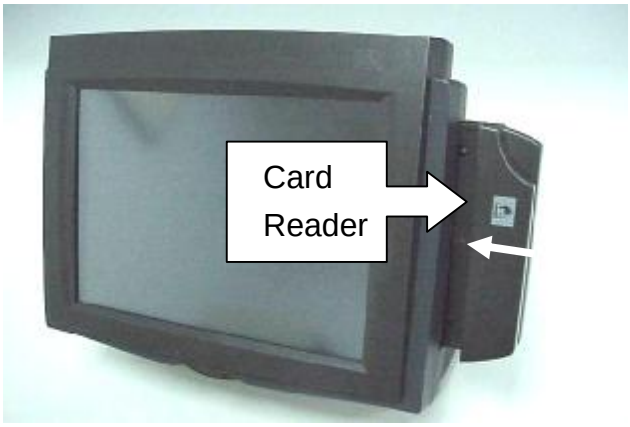
3.1. System Memory Combination

RAM Size / Slot	128MB		256MB			512MB			1024MB	2048MB
DIMM1	X	128	128	256	X	256	512	X	512	1024
DIMM2	128	X	128	X	256	256	X	512	512	1024

Note: 1. The DIMM1 of POS600 does not support RAM over 27 mm in height.
2. The DIMM2 of POS600 does not support RAM over 31 mm in height.

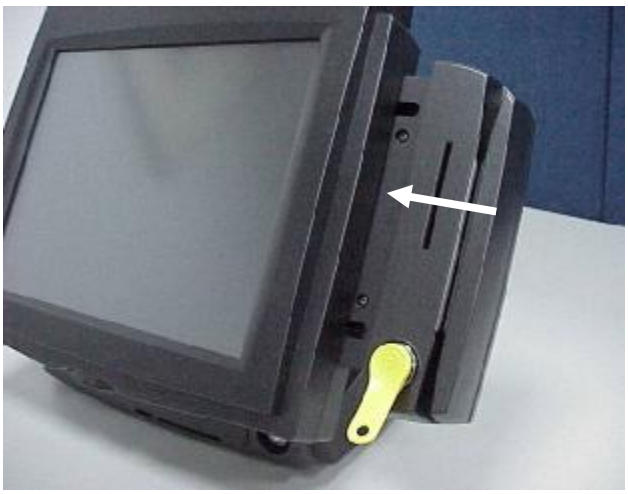
4. Peripherals Installation

4.1. Magnetic Card Reader Installation



a. Slide the MCR at the right side of System and tighten the screws (2).

4.2. Magnetic Card Reader / I-button Installation



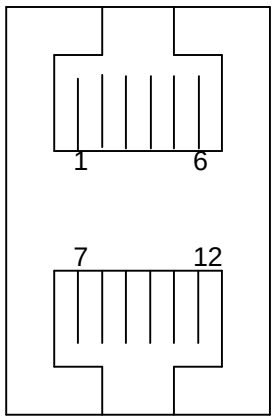
a. Slide the MCR/I-button at the right side of System and tighten the screws (2).

4.3. Cash Drawer Installation

a. Put the cash drawer under the system and connect the cash drawer cable to the system. Please confirm the pin assignment.

4.3.1. Cash Drawer Pin Assignment

Pin	Signal	Pin	Signal
1	GND	7	GND
2	DOUT bit0	8	DOUT bit2
3	DIN bit0	9	DIN bit1
4	12V/24V	10	12V/24V
5	DOUT bit1	11	DOUT bit3
6	GND	12	GND



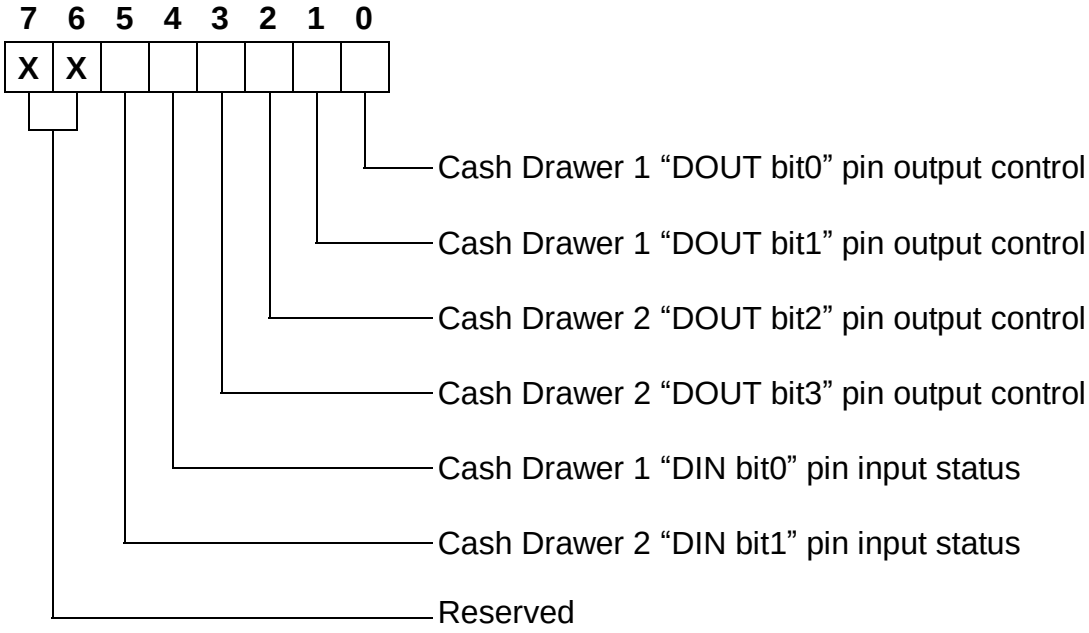
4.3.2. Cash Drawer Controller Registers

The Cash Drawer Controller use One I/O addresses to control the Cash Drawer – the Cash Drawer Control Register and the Cash Drawer Status Register.

4.3.2.1. Cash Drawer Control Register and Cash Drawer Status Register

Register Location: 4B8h
Attribute: Read / Write
Size: 8bit

BIT	BIT7	BIT6	BIT5	BIT4	BIT3	BIT2	BIT1	BIT0
Attribute	Reserve	Reserve	Read	Read	Write	Write	Write	Write



Bit 7: Reserve.

Bit 6: Reserve.

Bit 5: Cash Drawer 2 "DIN bit1" pin input status.

= 1: the Cash Drawer 2 closed or not exist.

= 0: the Cash Drawer 2 opened.

Bit 4: Cash Drawer 1 "DIN bit0" pin input status.

= 1: the Cash Drawer 1 closed or not exist.

= 0: the Cash Drawer 1 opened.

Bit 3: Cash Drawer 2 "DOUT bit3" pin output control.

= 1: Opening the Cash Drawer 2

= 0: Allow close the Cash Drawer 2

Bit 2: Cash Drawer 2 "DOUT bit2" pin output control.

= 1: Opening the Cash Drawer 2

= 0: Allow close the Cash Drawer 2

Bit 1: Cash Drawer 1 "DOUT bit1" pin output control.

= 1: Opening the Cash Drawer 1

= 0: Allow close the Cash Drawer 1

Bit 0: Cash Drawer 1 "DOUT bit0" pin output control.

= 1: Opening the Cash Drawer 1

= 0: Allow close the Cash Drawer 1

Note: Please follow the Cash Drawer control signal design to control the Cash Drawer.

4.3.2.2. Cash Drawer Control Command Example

Use Debug.EXE program under DOS or Windows98

Command	Cash Drawer 1	Cash Drawer 2
O 4B8 01	Opening	Allow to close
O 4B8 00	Allow to close	Allow to close

- Ø Set the I/O address 4B8h bit0 =1 for opening Cash Drawer1 by "DOUT bit0" pin control.
- Ø Set the I/O address 4B8h bit0 = 0 for allow close Cash Drawer1.

Command	Cash Drawer	Cash Drawer 2
I 4B8	Check status	Check status

- Ø The I/O address 4B8h bit4 =1 mean the Cash Drawer 1 is closed or not exist.
- Ø The I/O address 4B8h bit4 =0 mean the Cash Drawer 1 is opened.
- Ø The I/O address 4B8h bit5 =1 mean the Cash Drawer 2 is closed or not exist.
- Ø The I/O address 4B8h bit5 =0 mean the Cash Drawer 2 is opened.

4.4. Customer Display (Flat Type) Installation

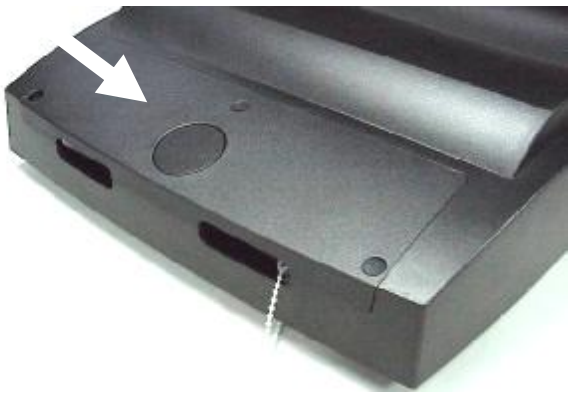
a. Connect the RS232 cable.

b. Connect the other end of the RS232 cable to the Customer Display module.

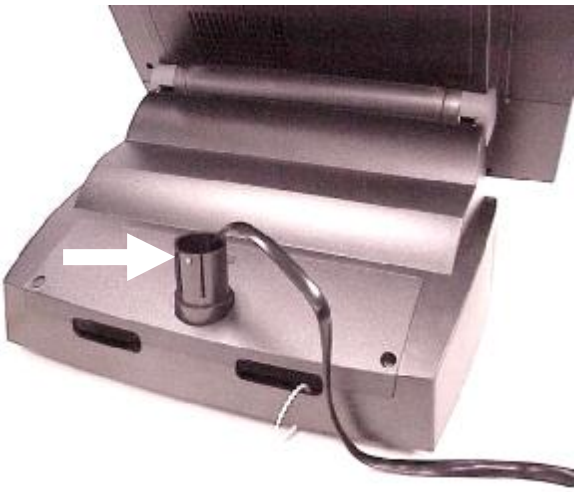
c. Tighten the screws (2) at the both sides of the customer display.

4.5. Customer Display (Pole type) Installation

a. Connect the DB-9F cable.

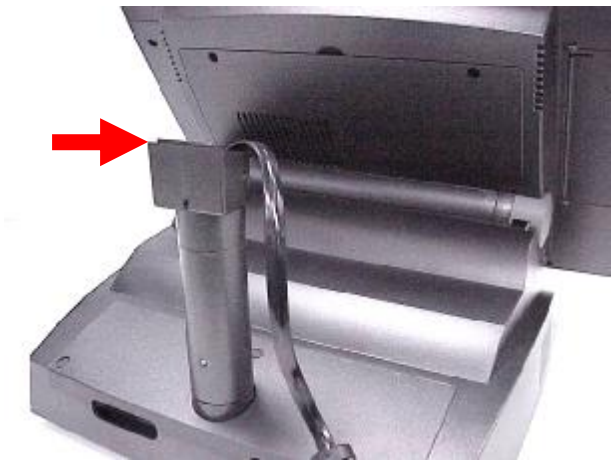


b. Remove the cap from the pole display base by fingers.



c. Install the pole support kit to the system base unit.

d. Install the pole to the pole support kit.



e. Install the top of the pole display to the support pole.

f. Connect the RJ45 connector into the jack of the customer display.

g. Insert the screw into the hole of the connection kit.

h. Fasten the cap at the other end of the screw.

4.6. Second Display Installation

Please ensure that the system power is turned off before connecting the second display. Failure to do so may damage the electronics of the system, and is not covered by the product warranty

a. Get the VGA cable through the supporter of the second display.

b. Connect the male head of the VGA cable to the second display.

c. Mount the second display on the rear of the system and tighten the screws (3) on the supporter (The third one is behind the supporting pole).

d. Connect the other end of the VGA cable (female) to the system.

5. Drivers Installation

5.1. Driver List

Folder/File	File Description
<CD>:\B77.htm	B77 Driver List
<CD>:\COMMON\INTEL\Chipset	Chipset driver
<CD>:\COMMON\INTEL\USB20	USB 2.0 driver
<CD>:\COMMON\INTEL\VGA\i85x	VGA driver
<CD>:\COMMON\Ac97_codec\Realtek\ALC202A	Audio driver
<CD>:\COMMON\Elo_Touch	ELO Touch Screen driver
<CD>:\COMMON\POS_Touch	POSTouch Touch Screen driver
<CD>:\COMMON\Lan_driver\R8139_810x	10\100Mb LAN driver
<CD>:\COMMON\Wireless_LAN\802.11g\Inprocomm_IPN2220	MiniPCI IEEE802.11g Wireless LAN driver
<CD>:\Common\SmartCard	Smart Card reader driver

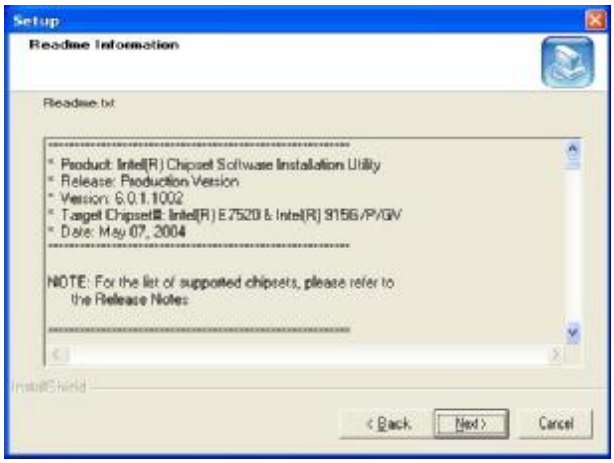
- The following procedures are for Windows 2000/XP, other platforms are similar.

5.2. Chipset Driver Installation

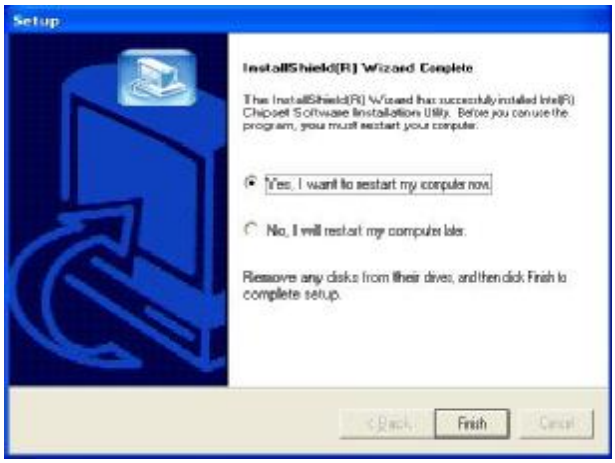
a. Double click “infinst_enu_6.0.1002” on the “My Computer” window.

b. Click the “Next” button on the “Welcome” window.

c. Click the "Yes" button on the "License Agreement" window.



d. Click the "Next" button on the "Readme Information" window.

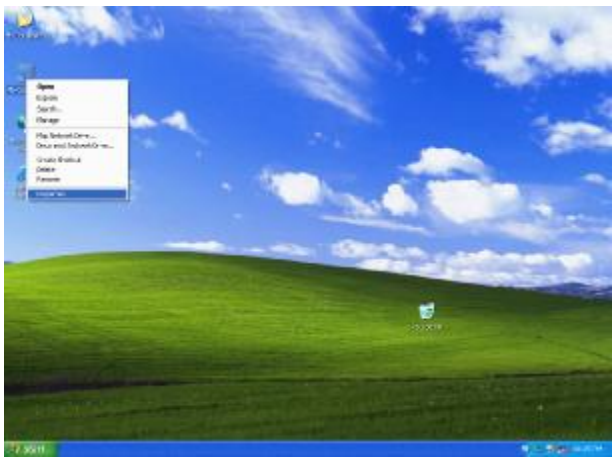


e. Click the "Finish" button and restart your system.

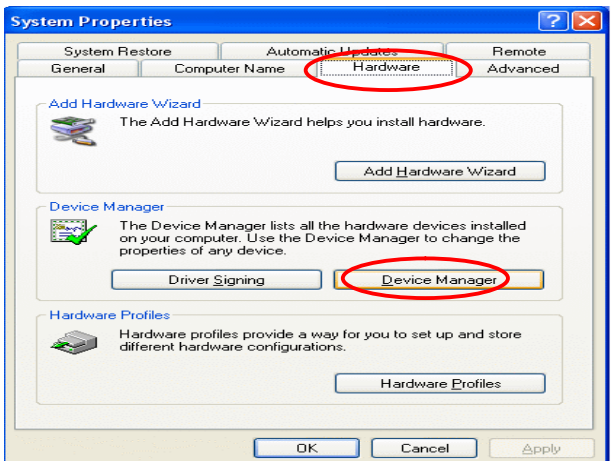
5.3. USB2.0 Driver Installation

OS Requirements

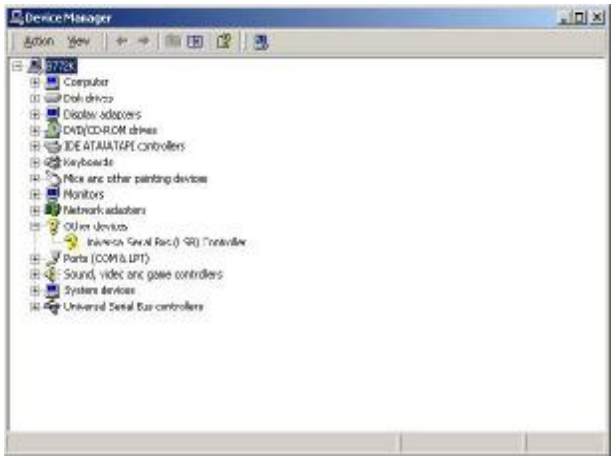
OS	USB 2.0 requirements
Windows XP	USB 2.0 drivers are provided in Service Pack 1 (SP1) for Windows XP, which is available through Windows Update.
Windows 2000	USB 2.0 drivers are available through Windows Update or Service Pack 4.
Windows 98SE/Me	USB 2.0 drivers are available on the Intel developer site.
Windows 98 (Retail)	Developers and OEMs should contact Orange Ware. For end-users, if your device does not ship with Windows 98 drivers, contact your device or system manufacturer. If USB 2.0 drivers are not available, your device will operate at USB 1.1 speeds
Linux	USB 2.0 support is available in kernel 2.4.19 or later development kernels, or in the 2.4.19 or later production kernel. More information.

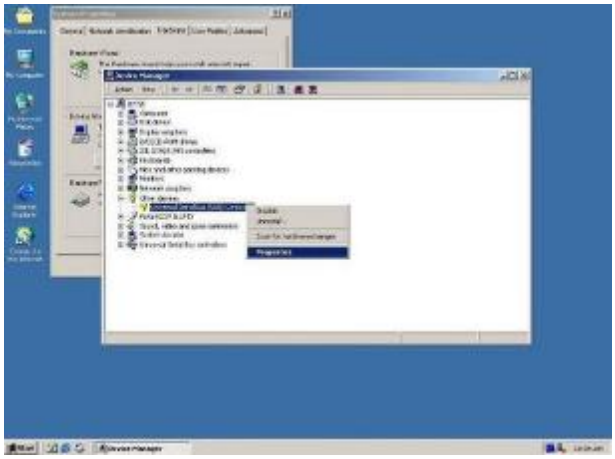


a. Right click "My Computer" on the desktop and select "properties".



b. Select "Hardware" **à** "Device Manager" on system properties.





c. Select "Other Devices" **à** "Universal Serial Bus (USB) Controller" **à** "Properties" in the Device Manager.

d. Select "Device" **à** "Update Driver…".

e. Click the "Next" button on the "Welcome" window.

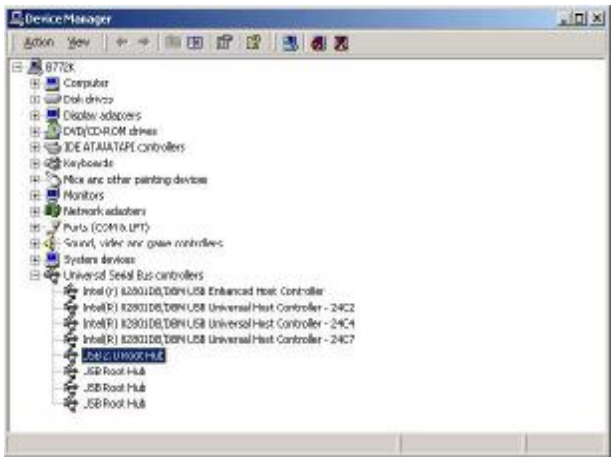
f. Select "Search for a suitable…"and click the "Next" button on the "Install Hardware Device Drivers" window.

g. Select "Specify a location" and click the "Next" button on the "Locate Driver Files" window.

h. Press "Browse" to select the driver and then click the "OK" button to go to the next page.

i. Click the "Next" button on the "Driver Files Search Results" window.

j. Click the "Finish" button to complete this process.



k. Finished.

5.4. VGA Driver Installation

a. Double click "win2k_xp147" on the "My Computer" window.

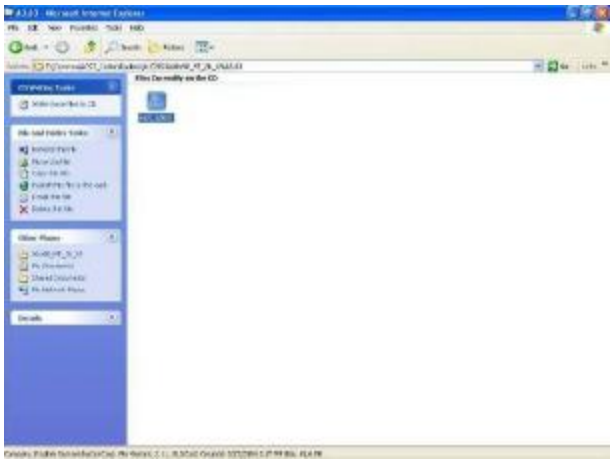
b. Click the "Next" button on the "Welcome" window.

c. Click the "Next" button on the "Welcome window".

d. Click the "Yes" button on the "License Agreement" window.

e. Click the "Finish" button and restart your system.

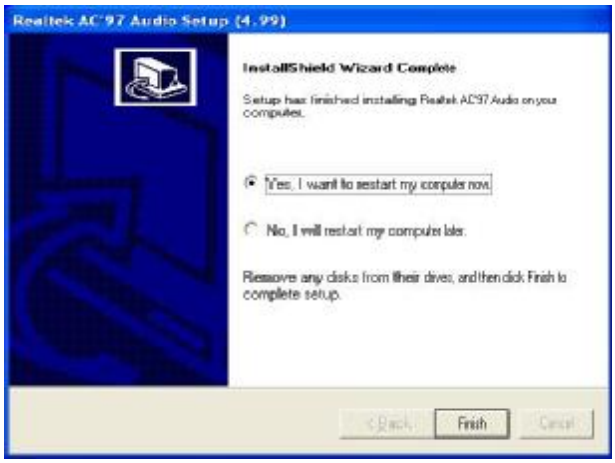
5.5. Audio Driver Installation



a. Double click the "wdm_93631" on the My computer window.

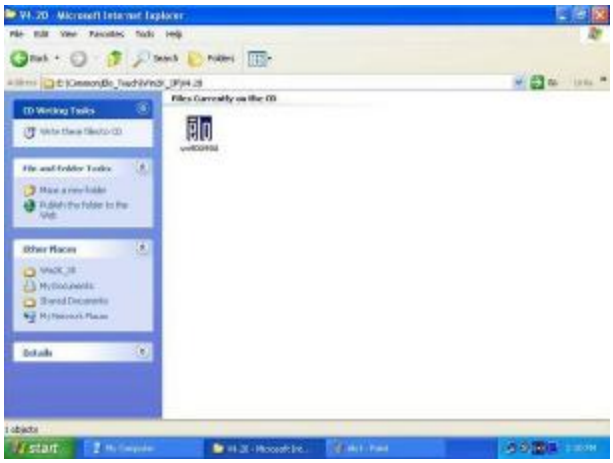
b. Click the "Next" button on the Welcome window.

c. Click the "Continue Anyway" button on the Hardware Installation window.



d. Click the "Finish" button and restart your system.

5.6. Elo Touch Screen Driver Installation



a. Click "sw500930" on the My Computer window.

b. Click the "OK" button on the Welcome window.

c. Click the "Unzip" button on the WinZip Self-Extractor window.

d. Select "Install Serial Touchscreen Drivers" and then click the "Next" button on the Welcome window.

e. Click the "Yes" button on the License Agreement window.

f. Click the "Next" button on the "Select the COM ports…" window.

g. Select "COM5" and click the "Next" button on the Choose the COM ports… window.

h. Click the "Next" button on the You have selected the COM ports…window.

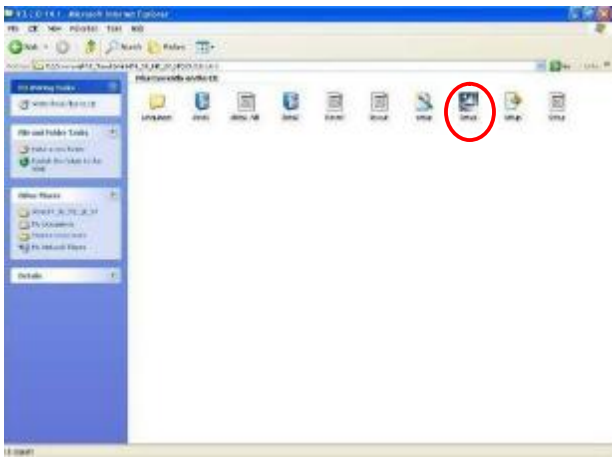
i. Click the "Finish" button on the Setup Complete window

j. Click the "Yes" button and restart your system.

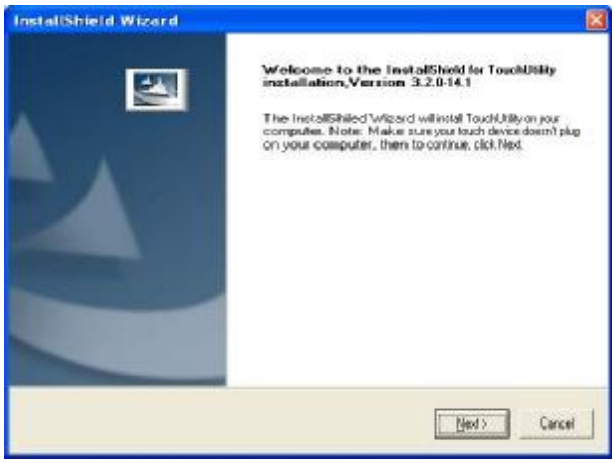
k. After the computer has restarted, click "Align" on the Elo Touchscreen Properties window.

l. Follow the instructions on the screen to calibrate the touch panel.

5.7. POSTouch Touch Driver Installation

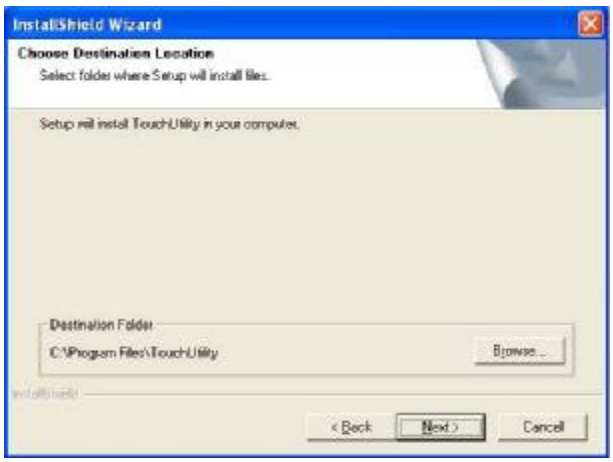


a. Double click the ”Setup” on the “My Computer” window.

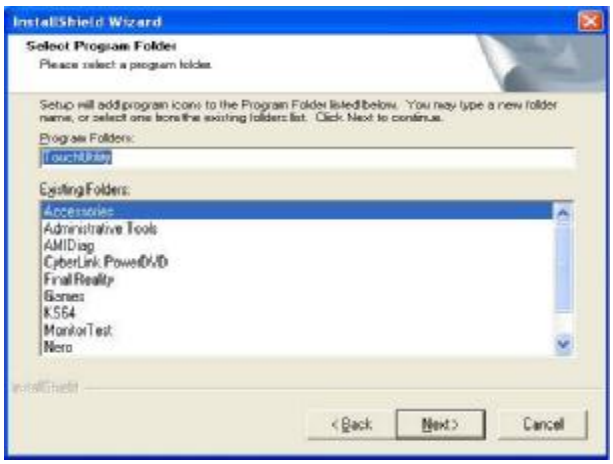


b. Click the “Next“ button on the “Welcome window”.

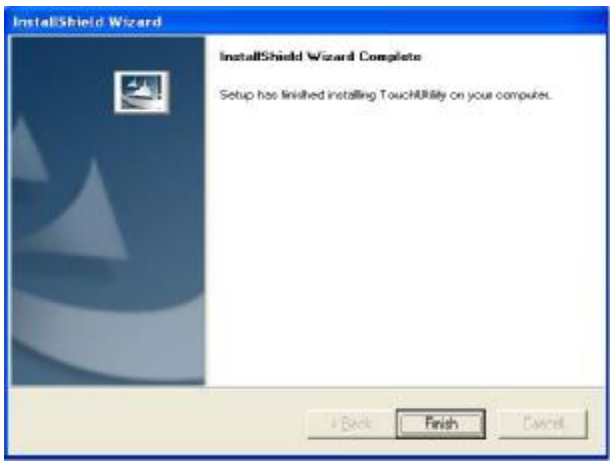
c. Click the ”Yes” button on the “License Agreement” window.



d. Click the ”Next” button on the “Choose Destination Location” window.



e. Click the “Next” button on the “Select Program Folder” window.



f. Click the “Finish” button on the “Install Shield Wizard Complete” window.

g. Click the "Continue Anyway " button on the "Hardware Installation" window.

h. Select the "Yes" and click the "OK" button and restart your system.

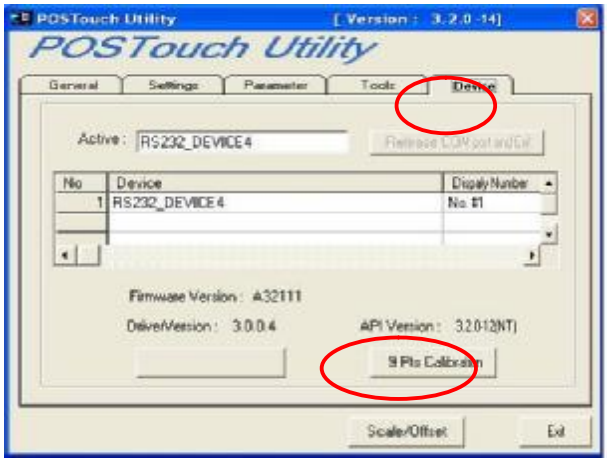
i. After the computer has restarted, select "Programs **à** TouchUtility **à** Scan RS232 Touch Device".

j. The serial ports are scanned for a touch device.

k. Select "Programs **à** TouchUtility **à** Touch Utility".

l. Click "Scale / Offset" on the POSTouch Utility window.

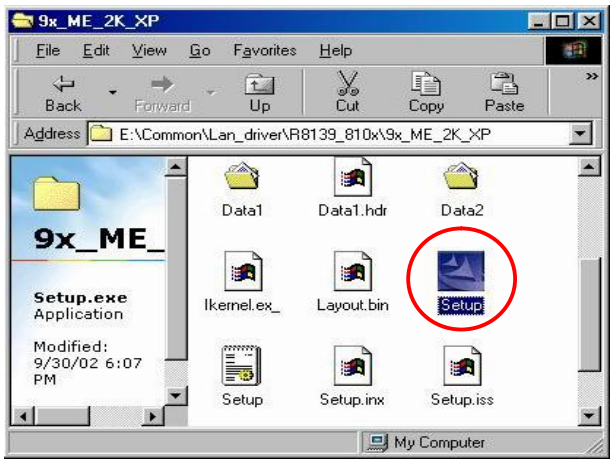
m. Follow the instruction on the screen to do a three point calibration of the touch panel.



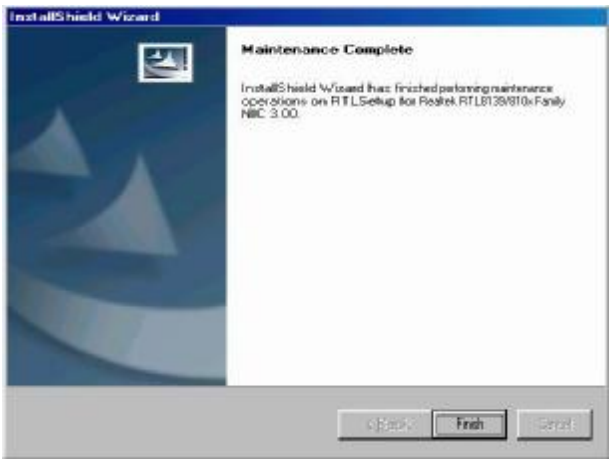
n. Select "Device **à** 9Pts Calibration" on the POSTouch Utility window.

o. Follow the instruction on the screen to do a nine point calibration of the touch panel.

5.8. LAN Driver Installation



a. Double click the "Setup" on the "My Computer" window.

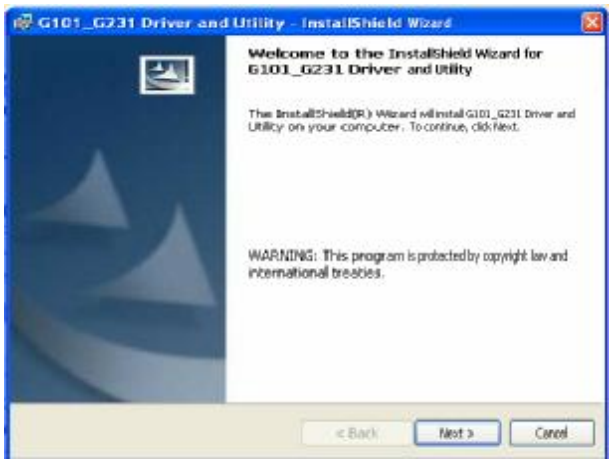


b. Click the "Finish" button on the "Maintenance complete" window.

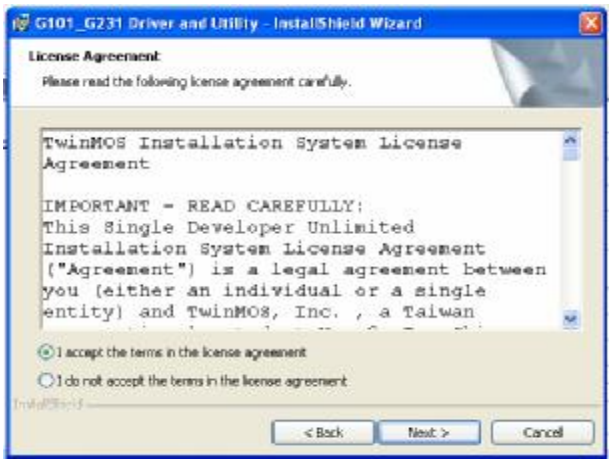
c. Click the "OK" button and restart your system.

5.9. MiniPCI IEEE802.11g WLAN Driver Installation

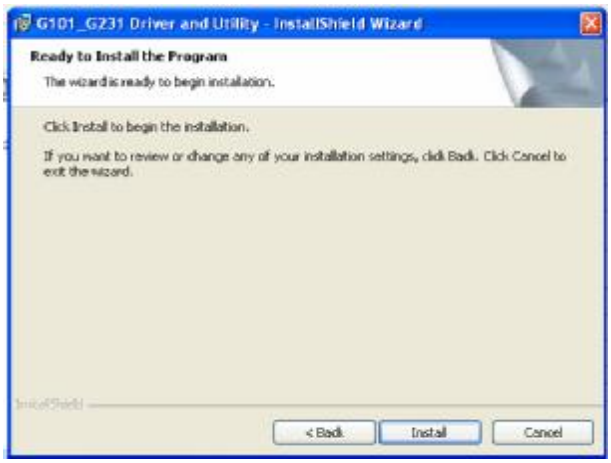
a. Double click the "Setup" on the "My Computer" window.



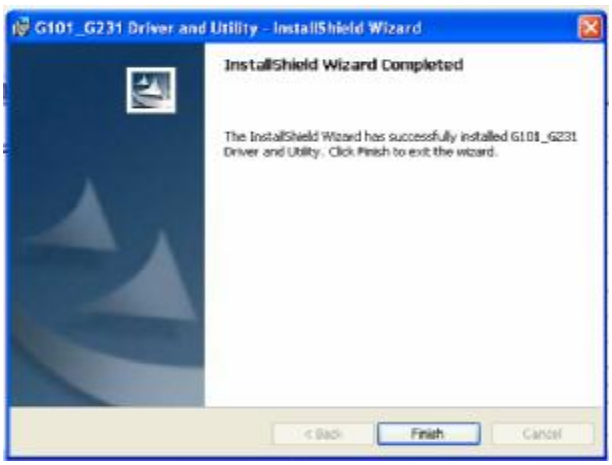
b. Click the "Next" button on the "Welcome……" window.



c. Click the "Next" button on the "License Agreement" window.



d. Click the "Install" on the "Ready to Install the Program" window.

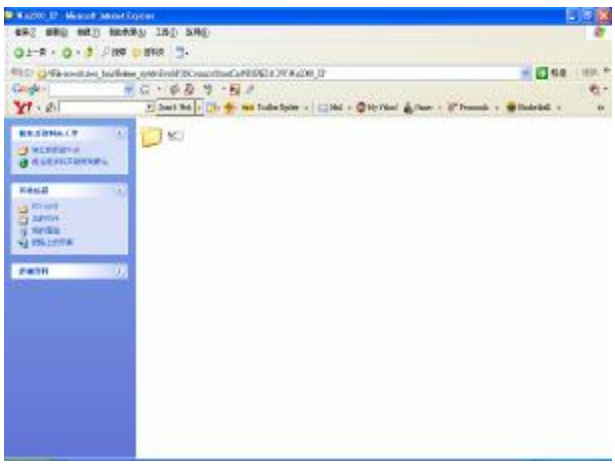


e. Click the "Finish" on the "InstallShield Wizard Completed" window.

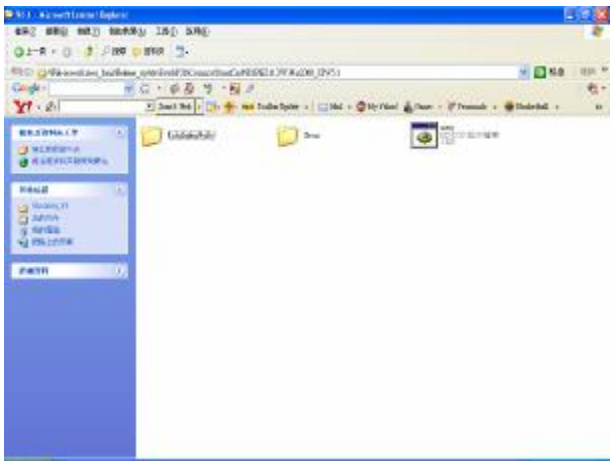
5.10. Smart Card Reader Driver Installation

a. Plug the EZUSB Smart Card Reader into your computer and Click the "Cancel" button if the "Found New Hardware Wizard" dialog appears.

b. Choose the " Smart Card Reader". Click " Win2K, XP" on the window.



c. Click "V6.1" on the window.



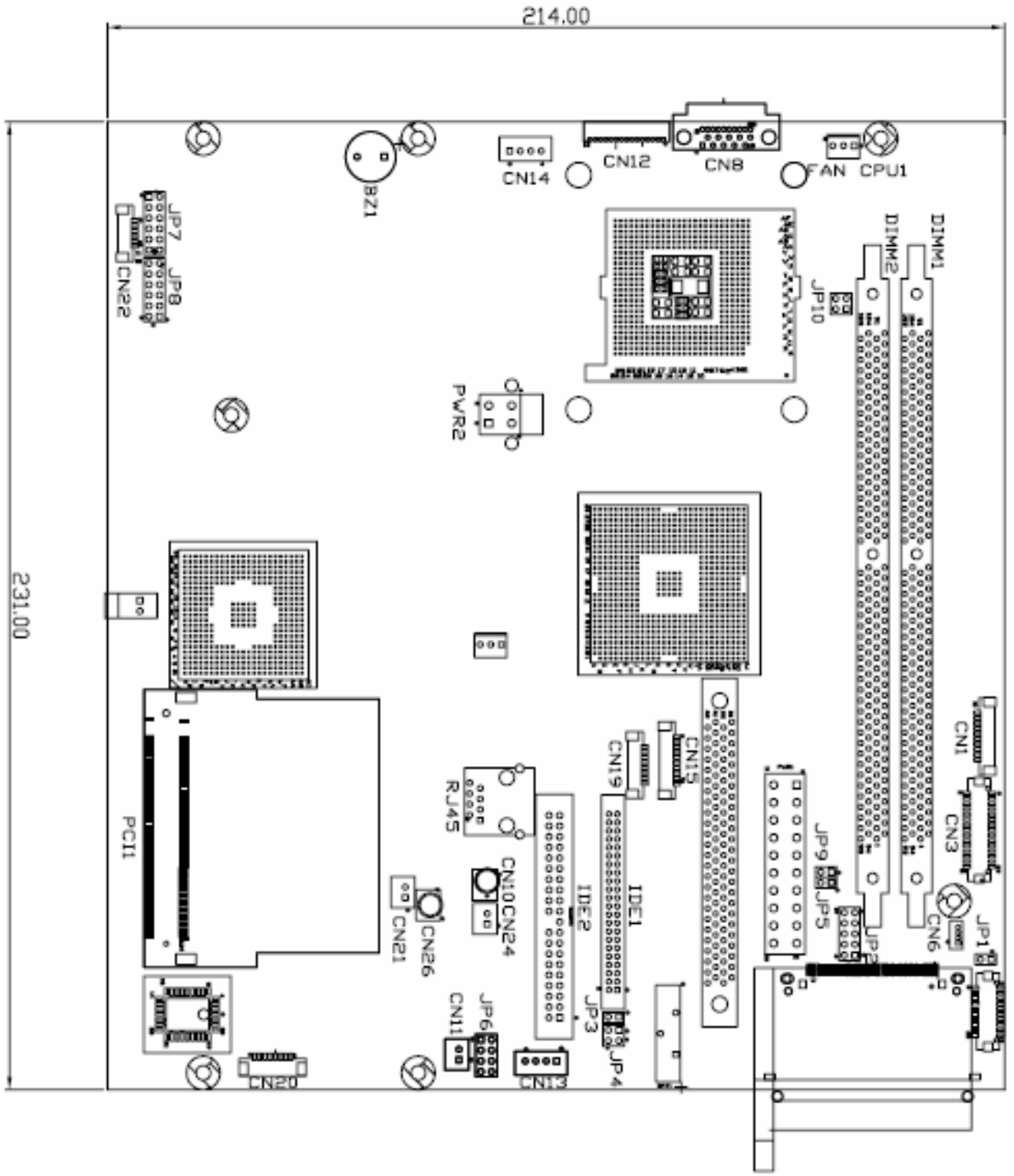
d. Click "Setup" on the window.

e. Click "Yes" button on the "EZUSB Series Reader Driver Setup Program v.6.1" window.

f. Click the "Yes" button and restart your system.

6. Jumper Settings

B77 Motherboard



1. Compact Flash Setting ◎Factory Default Setting

Function	JP1 (SHORT)
Master	◎1-2
Slave	N/C

2. I-BUTTON Setting

Function	JP4 (SHORT)
Use I-BUTTON	N/C
No I-BUTTON	◎1-2, 3-4

3. CMOS Operation Mode

Function	JP5 (SHORT)
CMOS Normal	◎N/C
COMS Reset	1-2

4. Power Mode Setting

Function	JP9 (SHORT)
ATX Power	◎N/C
AT Power	1-2

5. CPU Frequency Setting

Function	JP10 (SHORT)
FSB400	◎1-2, 3-4
FSB533	3-4

6. CPU Voltage Setting

CPU Type	**JP7 (SHORT)**	JP8 (SHORT)
◎P4	1-2, 3-4, 5-6, 7-8, 9-10, 11-12	N/C
Mobile Celeron 1.2G(1.3V)	N/C	3-4, 9-10

7. LCD ID Setting

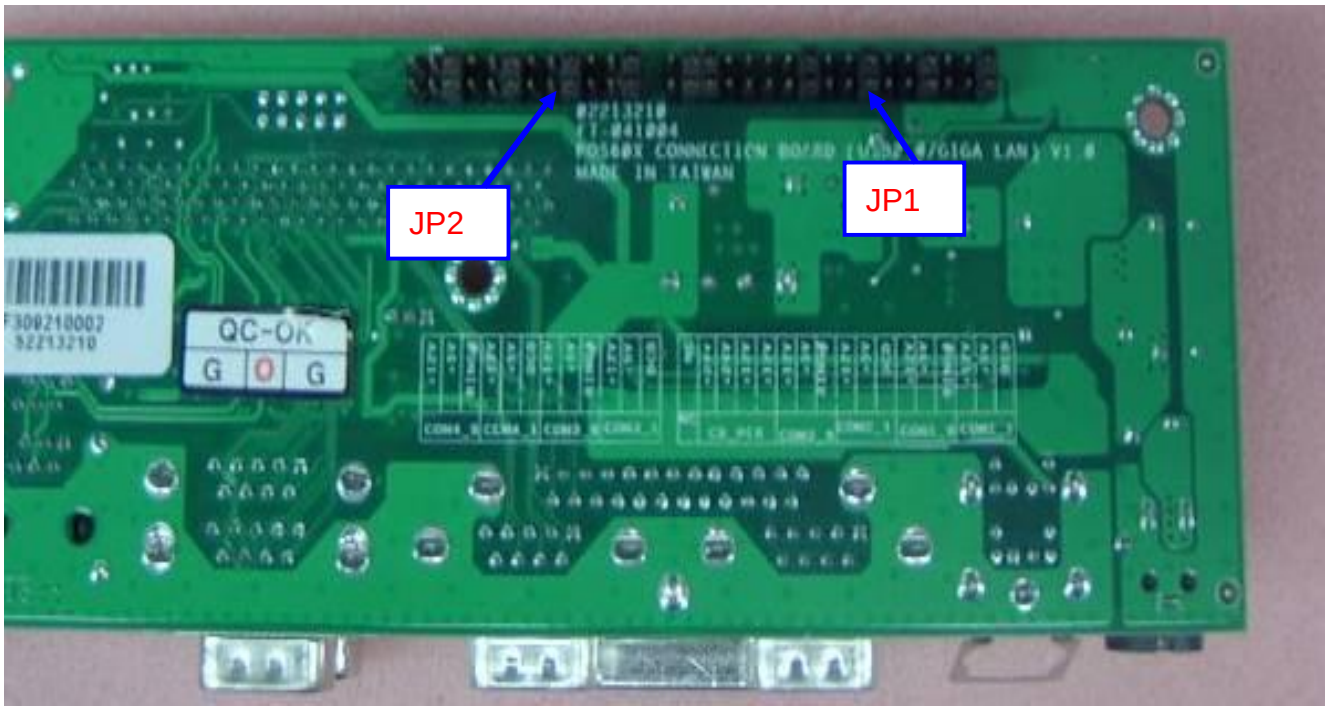
Panel Number	Resolution	LVDS		JP6 (SHORT)			
		Bits	Channel	1-2	3-4	5-6	7-8
0	640 x 480	18	Single	SHORT	SHORT	SHORT	SHORT
1	800 x 600	18	Single	SHORT	SHORT	SHORT	OPEN
2	1024 x 768	18	Single	SHORT	SHORT	OPEN	SHORT
3	1280 x 1024	24	Dual	SHORT	SHORT	OPEN	OPEN
4	1024 x 768	24	Single	SHORT	OPEN	SHORT	SHORT
5	800 x 600	24	Single	SHORT	OPEN	SHORT	OPEN

Note:

OPEN 

SHORT 

6.1. Connector Jumper Settings



1. CDR Power Mode Setting

Function	JP1 (SHORT)
NC	◎1-2
+24V	3-4
+24V	5-6
+12V	7-8
+12V	9-10

2. COM1 Power Mode Setting

Pin	Function	JP1 (SHORT)
1	◎DCD	33-34
	+12V	29-30
	+5V	31-32
9	◎RI	27-28
	+12V	23-24
	+5V	25-26

3. COM2 Power Mode Setting

Pin	Function	JP1 (SHORT)
1	◎DCD	21-22
	+12V	17-18
	+5V	19-20
9	◎RI	15-16
	+12V	11-12
	+5V	13-14

4. COM3 Power Mode Setting

Pin	Function	JP2 (SHORT)
1	◎DCD	23-24
	+12V	19-20
	+5V	21-22
9	◎RI	17-18
	+12V	13-14
	+5V	15-16

5. COM4 Power Mode Setting

Pin	Function	JP2 (SHORT)
1	◎DCD	11-12
	+12V	7-8
	+5V	9-10
9	◎RI	5-6
	+12V	1-2
	+5V	3-4

6.2 Connectors Pin Definition

1. CN1 Touch

Pin 1	RS232_DCD#	Pin 2	RS232_RX#
Pin 3	RS232_TX#	Pin 4	RS232_DTR#
Pin 5	GND	Pin 6	RS232_DSR#
Pin 7	RS232_RTS#	Pin 8	RS232_CTS#
Pin 9	RS232_RI	Pin 10	+5V

2. CN3 LCD Interface

Pin 1	GND	Pin 2	LVDS_A3+
Pin 3	BKLEN	Pin 4	LVDS_A3-
Pin 5	GND	Pin 6	GND
Pin 7	+5V	Pin 8	LVDS_CLKA+
Pin 9	+3.3V	Pin 10	LVDS_CLKA-
Pin 11	GND	Pin 12	GND
Pin 13	+3.3V_LCDVDD	Pin 14	LVDS_A2+
Pin 15	+3.3V_LCDVDD	Pin 16	LVDS_A2-
Pin 17	RS232_5_DCD#	Pin 18	GND
Pin 19	RS232_5_RX#	Pin 20	LVDS_A1+
Pin 21	RS232_5_TX#	Pin 22	LVDS_A1-
Pin 23	RS232_5_DTR#	Pin 24	GND
Pin 25	RS232_5_DSR#	Pin 26	LVDS_A0+
Pin 27	RS232_5_RTS#	Pin 28	LVDS_A0-
Pin 29	RS232_5_CTXS#	Pin 30	GND

3.CN6 Inverter

Pin 1	DCD#	Pin 2	+12V
Pin 3	+15V	Pin 4	GND

4. CN8 12"POS Card Reader

Pin 1	USB20_P-	Pin 2	USB20_P+
Pin 3	KCLK_MSR_TO_IBT	Pin 4	KB_EN
Pin 5	KDATA_MSR_TO_IBT	Pin 6	+5V
Pin 7	KCLK_SIO_TO_MSR	Pin 8	RS232_CR_RX#
Pin 9	KDATA_SIO_TO_MSR	Pin 10	RS232_CR_TX#
Pin 11	RS232_CR_TX#	Pin 12	KDATA_SIO_TO_MSR
Pin 13	RS232_CR_RX#	Pin 14	KCLK_SIO_TO_MSR
Pin 15	+5V	Pin 16	KDATA_MSR_TO_IBT
Pin 17	GND	Pin 18	KCLK_MSR_TO_IBT
Pin 19	USB20_P+	Pin 20	USB20_P-

5. CN11 Power Switch

Pin 1	SW_PWRBT#	Pin 2	GND

6. CN12 15"POS Card Reader

Pin 1	GND	Pin 2	+5V
Pin 3	RS232_CR_RX#	Pin 4	RS232_CR_TX#
Pin 5	KDATA_SIO_TO_MSR	Pin 6	KCLK_SIO_TO_MSR
Pin 7	KDATA_MSR_TO_IBT	Pin 8	KCLK_MSR_TO_IBT
Pin 9	RS232_CR_RI	Pin 10	RS232_CR_DTR#
Pin 11	RS232_CR_CTS#	Pin 12	RS232_CR_RTS#
Pin 13	RS232_CR_DSR#	Pin 14	RS232_CR_DCD#
Pin 15	KB_EN		

7. CN13 and CN14 USB Interface

Pin 1	+5V	Pin 2	USB20_P-
Pin 3	USB20_P+	Pin 4	GND

8. CN15 AC97+Power BT

Pin 1	SW_PWRBT#	Pin 2	USB20_OC#2_3
Pin 3	GND	Pin 4	GND
Pin 5	AC97_BITCLK	Pin 6	AC97_RST#
Pin 7	AC97_SYNC	Pin 8	AC97_SDIN1
Pin 9	AC97_SDIN0	Pin 10	AC97_SDOUT

9. CN19 USB3 / USB4 Port

Pin 1	+5V	Pin 2	+5V
Pin 3	USB20_P3+	Pin 4	USB20_P3-
Pin 5	GND	Pin 6	USB20_P2-
Pin 7	USB20_P2+	Pin 8	GND

10. CN20 I-Button

Pin 1	GND	Pin 2	GND
Pin 3	KCLK_IBT_TO_IO	Pin 4	KDATA_IBT_TO_IO
Pin 5	KCLK_MSR_TO_IBT	Pin 6	KDATA_MSR_TO_IBT
Pin 7	GND	Pin 8	+5V

11. CN25 LCD Interface (Dual Channel)

Pin 1	+5V_LCDVDD	Pin 2	LVDS_B0+
Pin 3	+5V_LCDVDD	Pin 4	LVDS_B0-
Pin 5	+5V_LCDVDD	Pin 6	LVDS_B1+
Pin 7	+5V_LCDVDD	Pin 8	LVDS_B1-
Pin 9	+5V_LCDVDD	Pin 10	LVDS_B2+
Pin 11	GND	Pin 12	LVDS_B2-
Pin 13	GND	Pin 14	LVDS_B3+
Pin 15	GND	Pin 16	LVDS_B3-
Pin 17	GND	Pin 18	LVDS_CLKB+
Pin 19	GND	Pin 20	LVDS_CLKB-

7. BIOS Settings

1. BIOS Setup Utility

The BIOS setup defines how the system is configured. You need to run this program the first time you configure this product. You may need to run it again if you change the configuration.
You need to connect a PC keyboard to the keyboard connector to run the BIOS setup utility.

2. Starting the BIOS Setup

1. Turn on or reboot this product.
2. Press the DEL key immediately after the product is turned on, or press the DEL key when the following message is displayed during POST (the Power on Self-Test).

   Press DEL to enter SETUP.
3. The main menu of the BIOS setup is displayed.
4. If the supervisor password is set, you must enter it here.

3. When a Problem Occurs

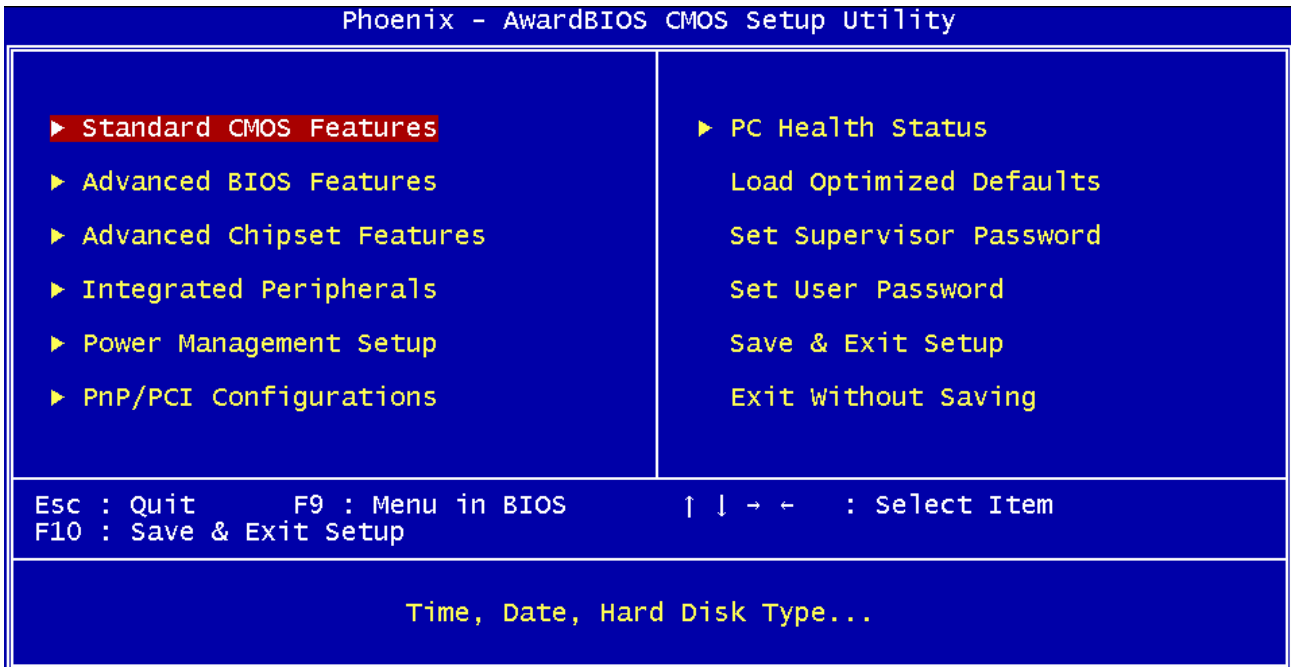
If, after making and saving system changes with the Setup utility, you find that this product no longer boots, start the BIOS setup and execute the following.

Load Optimized Defaults

4. BIOS Main Menu

When the BIOS Main Menu is displayed, the following items can be selected. Use the arrow keys to select items and the Enter key to accept and enter the sub-menu.

Note: The BIOS menu below is from B77 BIOS version. If you have a different BIOS version, the contents of the menu may different.



Standard CMOS Features

Use this menu for basic system configuration.

Advanced BIOS Features

Use this menu to set the Advanced Features available on the system.

Advanced Chipset Features

Use this menu to change the values in the chipset registers and optimize the system's performance.

Integrated Peripherals

Use this menu to specify your settings for integrated peripherals.

Power Management setup

Use this menu to specify your settings for power management.

PnP/PCI Configurations

This entry appears if your system supports Plug and Play and PCI Configuration.

PC health status

Displays CPU, System Temperature, Fan Speed, and System Voltages Value.

Load Optimized Defaults

Use this menu to load the BIOS default values, i.e., factory settings for optimal performance system operations. While Award has designed the custom BIOS to maximize performance, the factory has the option to change these defaults to meet their needs.

Set Supervisor Password

Enables you to change, set, or disable the supervisor or user password.

Set Password

Change, set, or disable the password. It allows you to limit access to the system and to the setup, or just to the setup.

Save & exit setup

Save CMOS value changes to CMOS and exits setup.

Exit without saving

Ignores all CMOS value changes and exits setup.